

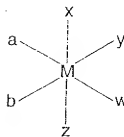
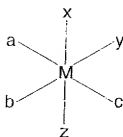
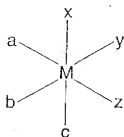
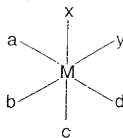
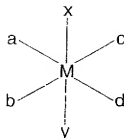
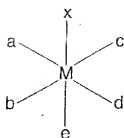
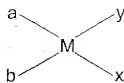
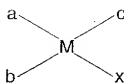
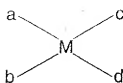
## **AMENDMENTS TO THE CLAIMS:**

The following listing of claims will replace all prior versions and listings of claims in the application:

1-55. (Canceled)

56. (New) A method of inhibiting the binding of one or more metal ions to a  $\beta$  - amyloid peptide in a patient in need thereof comprising exposing the peptide in said patient to a metal complex of a 1, 10-phenanthroline, a porphyrin or a 2, 2-bipyridine, said metal being Mn, Co, Ni, Cu, Zn, Ru, Pd, Ag, Cd, Pt, Au, Rh or Hg, wherein the metal complex binds to at least one histidine selected from the group of His 6, His 13 and His 4 of the N- terminal loop of the  $\beta$  - amyloid peptide, thereby blocking the binding of  $\text{Cu}^{2+}$ ,  $\text{Zn}^{2+}$  and/or  $\text{Fe}^{2+}$  ions to said at least one histidine residue.

57. (New) The method of Claim 56, wherein the metal complex has the formula



wherein a, b, d, c, and e are chelating non-leaving groups present in said porphyrin, 2,2'-bipyridine and 1, 10-phenanthroline,

M is a metal selected from the group consisting of Mn, Co, Ni, Cu, Zn, Ru, Pd, Ag, Cd, Pt, Au, Rh and Hg, and

w, x, y, and z are leaving groups.

58. (New) The method of Claim 56, wherein the complex binds to at least two of the histidine residues in the N-terminal loop.

59. (New) The method of Claim 56, wherein the complex binds to at least three of the histidine residues in the N-terminal loop.

60. (New) The method of Claim 56, wherein the complex binds to at least one additional amino acid in the N-terminal loop, selected from the group consisting of Asp7, Tyr10 and Glu11.

61. (New) The method of Claim 56, wherein the complex is able to penetrate the blood-brain barrier.

62. (New) The method of Claim 56, wherein the complex comprises a targeting moiety selected from the group consisting of polypeptides, nucleic acids, carbohydrates, lipids,  $\beta$ -amyloid ligands, antibodies and dyes.

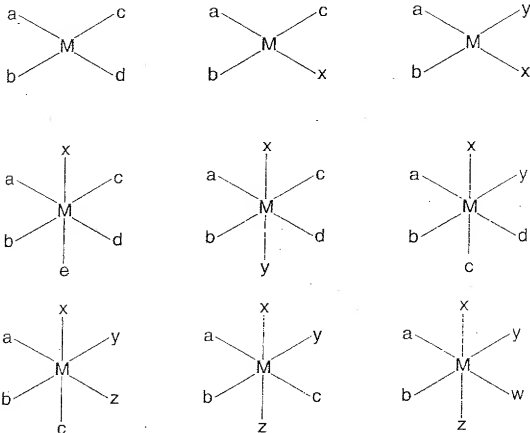
63. (New) The method of Claim 62, wherein the targeting moiety has a hydrophobic region which interacts with the tail of the  $\beta$ -amyloid peptide.

64. (New) The method of Claim 63, wherein the targeting moiety targets the complex to a site defined by residues 15 to 21 of the  $\beta$ -amyloid peptide.

65. (New) The method of Claim 56, wherein the metal in the complex is Pt.

66. (New) A method for the treatment of Alzheimer's disease to a subject in need of such treatment which comprises administering to said subject a therapeutically effective amount of a metal complex of a 1, 10-phenanthroline, a porphyrin or a 2, 2'-bipyridine, said metal being Mn, Co, Ni, Cu, Zn, Ru, Pd, Ag, Cd, Pt, Au, Rh or Hg.

67. (New) The method of Claim 66, wherein the metal complex has the formula



wherein a, b, d, c, and e are chelating non-leaving groups present in said porphyrin, 2,2'-bipyridine and 1, 10-phenanthroline,

M is a metal selected from the group consisting of Mn, Co, Ni, Cu, Zn, Ru, Pd, Ag, Cd, Pt, Au, Rh and Hg, and  
w, x, y, and z are leaving groups.

68. (New) The method of Claim 56, wherein the complex is able to penetrate the blood-brain barrier.

69. (New) The method of Claim 67, wherein the targeting moiety has a hydrophobic region which interacts with the tail of the  $\beta$ -amyloid peptide.

70. (New) The method of Claim 68, wherein the targeting moiety has a hydrophobic region which interacts with the tail of the  $\beta$ -amyloid peptide

71. (New) The method of Claim 66, wherein the targeting moiety has a hydrophobic region which interacts with the tail of the  $\beta$ -amyloid peptide